Extraosseous Plasmacytoma : Real world outcomes of a rare plasma cell neoplasm using the SEER Database

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INTRODUCTION

Extraosseous plasmacytoma, also called extramedullary plasmacytoma, is a rare plasma-cell cancer that grows in soft tissue outside the bone marrow.

It makes up about 3 to 5 percent of all plasma-cell cancers.

Because it is so uncommon, there is little population-level information on how often it occurs and how patients do over time.

AIM

We used the Surveillance, Epidemiology, and End Results (SEER) database to describe how often extraosseous plasmacytoma occurs, who it affects, where in the body it starts, and how long patients survive, so that this rare condition is better understood.

METHOD

- Retrospective analysis of the SEER 17-registry database from 2000 to 2022.
- We identified 1,957 histologically confirmed cases of extraosseous plasmacytoma (International Classification of Diseases for Oncology, third edition, code 9734/3) in patients aged 0 to 90 years.
- Overall survival was estimated with the Kaplan-Meier method, and groups were compared with the log-rank test.
- Univariable and multivariable Cox proportional-hazards regression identified independent predictors of survival.

CONCLUSIONS

- Extraosseous plasmacytoma has a favorable outlook, with a median overall survival of more than 8 years (107 months).
- Local treatments, surgery and radiation, were each independently linked to better survival.
- Non-Hispanic Black patients had independently worse survival.
- **Age was the strongest predictor: patients aged 80 years and older had almost a 7-fold higher risk of death than those younger than 50 years.**

RESULTS

Local treatment predominated: radiation 54.5% · surgery 46.2% · chemotherapy 17.3% · 61.3% localized at diagnosis

1,957
Patients
64.2% male

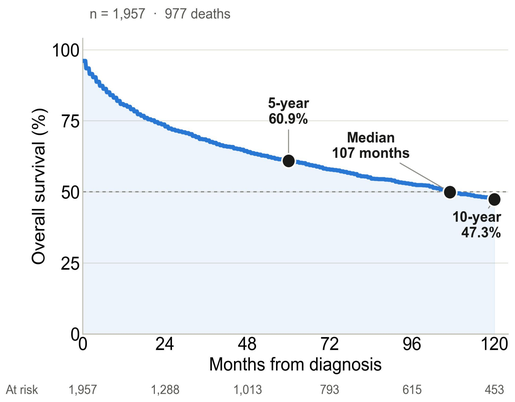
65 y
Median age
range 0 to 90 years

107
Median overall survival, months
more than 8 years

60.9%
5-year overall survival
10-year overall survival 47.3%

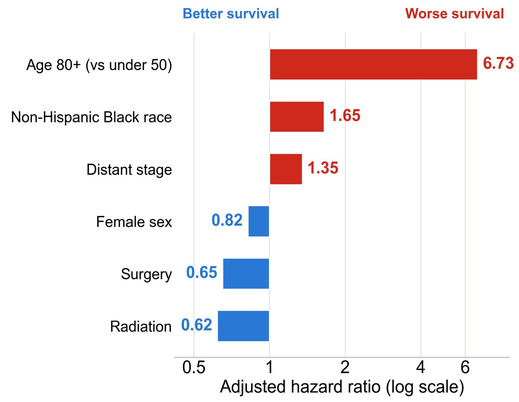
6.73
Hazard ratio, age 80 and older
versus under 50 years · P < 0.001

Median survival exceeds 8 years



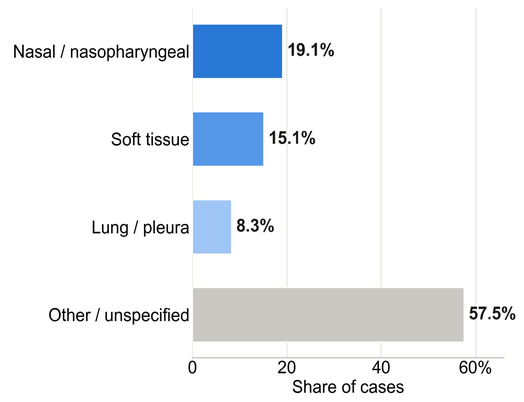
Overall survival, with markers at the reported 5-year (60.9%), median (107 months) and 10-year (47.3%) estimates.

Independent predictors of survival



Multivariable Cox model. Point estimates shown; all factors significant at P of 0.01 or lower.

Primary anatomic sites



Distribution of extraosseous plasmacytoma primary sites; remaining sites grouped as other or unspecified.

ACKNOWLEDGEMENTS

This study used the Surveillance, Epidemiology, and End Results (SEER) Program database of the National Cancer Institute. The interpretations and conclusions are those of the authors and do not necessarily reflect those of the National Cancer Institute.

CONTACT INFORMATION

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